

IN THE DRAWINGS

The attached sheet of drawings includes changes to Figures 6, 7, 8, 10, and 32-38.

Attachment: 9 Replacement Sheets

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1, 17-34, and 43-48 are presently pending in this case. Claims 1, 17, 31, 33, 34, and 43-48 are amended and Claims 2-16, 35-42, 49, and 50 are canceled without prejudice or disclaimer by the present amendment. As amended Claims 1, 17, 31, 33, 34, and 43-48 are supported at least by the original disclosure,¹ no new matter is added.

In the outstanding Official Action, Claims 1, 36, 37, 39, and 43-49 were objected to; the drawings were objected to; Claims 1, 36-39, and 45-49 were rejected under 35 U.S.C. §101; Claims 1, 17-21, 28, 36-39, 44, 45, and 47-49 were rejected under 35 U.S.C. §102(b) as anticipated by Ogawa et al. (U.S. Patent No. 5,787,179, hereinafter “Ogawa”); Claims 22-27, 29, and 30 were rejected under 35 U.S.C. §103(a) as unpatentable over Ogawa in view of Billhartz et al. (U.S. Patent Application Publication No. 20030210788, hereinafter “Billhartz”); and Claims 43 and 46 were rejected under 35 U.S.C. §103(a) as unpatentable over Ogawa in view of Akiyama et al. (U.S. Patent No. 6,460,137, hereinafter “Akiyama”). However, Claims 31-34 were indicated as including allowable subject matter.

Applicant acknowledges with appreciation the indication that Claims 31-34 include allowable subject matter. In this regard, Claim 31, 33, and 34 are amended to include the subject matter of Claim 17, for which each of these claims depends. Accordingly, Claims 31-34 are in condition for allowance.

Claims 2-16, 35-42, 49, and 50 are canceled without prejudice or disclaimer, making the objection to and rejections of these claims moot.

¹See, e.g., paragraph 96 of the publication of the specification.

With regard to the objection to Claims 1 and 43-49, Claims 1 and 43-49 are amended to provide antecedent basis for all terms. Accordingly, the objection to Claims 1 and 43-49 is believed to be overcome.

With regard to the objection to the drawings, Figures 6, 7, 8, and 10 are amended such that all labels on the drawings are included in the specification. Further, Figures 32-38 are amended to include the label "Background Art." Accordingly, the objection to the drawings is believed to be overcome.

With regard to rejection of Claims 1 and 45-49 under 35 U.S.C. §101, Claims 1, 45, and 49 are amended to recite hardware structure, namely a transmitter and/or receiver. Accordingly, these claims cannot be considered software *per se*. Claims 46-48 are amended to recite a non-transitory computer readable medium, as suggested in the outstanding Office Action. Accordingly, Claims 1 and 45-49 are in compliance with all requirements under 35 U.S.C. §101.

With regard to the rejection of Claims 1, 17, 44, 45, and 47-49 as anticipated by Ogawa, that outstanding rejection is respectfully traversed.

Amended Claim 1 recites in part:

a transmitter configured to generate and to transmit a signal including
a physical layer header section; and
a data section,
the transmitter configured to generate a scrambling initial value using at least a part of the physical layer header section, the transmitter configured to scramble the data section using the scrambling initial value, ***the transmitter configured to transmit the physical layer header section using a first modulation method and a first encoding rate with a first signal to noise ratio, the transmitter configured to transmit the data section using a second modulation method and a second encoding rate with a second signal to noise ratio, the first signal to noise ratio being less than the second signal to noise ratio;*** and
a receiver configured to receive a signal from the transmitter, the receiver generating a descrambling initial value using at least a part of the physical layer header section, the

receiver descrambling the data section using the descrambling initial value.

Ogawa describes an apparatus that encodes MPEG data and encodes it onto a computer readable medium. As described at the top of column 7 of Ogawa, the output stream of selection circuit 29 is encoded onto medium 30. The outstanding Office Action apparently cited the packet header shown in Figure 4 of Ogawa as “a physical layer header section” and the packet data shown in Figure 4 of Ogawa as “a data section” as previously recited in Claim 1. However, Ogawa does not describe that any part of the packet headers and packet data are transmitted using different modulation methods or encoding rates such that a signal to noise ratio of the packet headers is less than a signal to noise ratio of the packet data. Accordingly, Ogawa cannot teach or suggest “a transmitter” as defined in amended Claim 1. Therefore, Claim 1 is not anticipated by Ogawa and is patentable thereover.

Independent Claims 17, 44, 45, and 47-49 all recite that a physical layer header section is transmitted and/or received using a first modulation method and a first encoding rate with a first signal to noise ratio, a data section is transmitted and/or received using a second modulation method and a second encoding rate with a second signal to noise ratio, the first signal to noise ratio being less than the second signal to noise ratio, albeit in different statutory formats than Claim 1. As noted above, Ogawa does not describe that any part of the packet headers and packet data are transmitted and/or received using different modulation methods or encoding rates such that a signal to noise ratio of the packet headers is less than a signal to noise ratio of the packet data. Therefore, Claims 17, 44, 45, and 47-49 are also not anticipated by Ogawa and are patentable thereover.

With regard to the rejection of Claims 22-27, 29, and 30 as unpatentable over Ogawa in view of Billhartz, it is noted that Claims 22-27, 29, and 30 are dependent from Claim 17, and thus are believed to be patentable for at least the reasons discussed above. Further, it is respectfully submitted that Billhartz does not cure any of the above-noted deficiencies of

Ogawa. Accordingly, it is respectfully submitted that Claims 22-27, 29, and 30 are patentable over Ogawa in view of Billhartz.

With regard to rejection of Claims 43 and 46 as unpatentable over Ogawa in view of Akiyama, that rejection is also respectfully traversed.

Amended Claim 43 recites in part:

generating a physical layer header of a transmission packet;
inverting a parity signal in said physical layer header, and setting predetermined data included in said physical layer header as an initial value in the internal state of said scrambler, in the event of indicating that an initial value should be set in said internal state; and
subjecting a signal to be processed in said transmission packet to a predetermined arithmetic operation according to the internal state of said scrambler, and outputting a processed transmission packet; and
transmitting the processed transmission packet over a communication channel using a transmitter, the transmitting including
*transmitting the physical layer header section using a first modulation method and a first encoding rate with a first signal to noise ratio, and
transmitting the data section using a second modulation method and a second encoding rate with a second signal to noise ratio, the first signal to noise ratio being less than the second signal to noise ratio.*

As noted above, Ogawa does not teach or suggest the above highlighted feature.

Moreover, it is respectfully submitted that Akiyama does not cure this deficiency of Ogawa.

Accordingly, Claim 43 is patentable over Ogawa in view of Akiyama.

Further, as Claim 46 also recites the above highlighted feature, Claim 46 is also patentable over Ogawa in view of Akiyama.

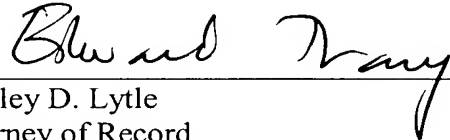
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Reply to Office Action of August 10, 2010

Accordingly, the pending claims are believed to be in condition for formal allowance.

An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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A handwritten signature in cursive script, appearing to read "Bradley D. Lytle", is written over a horizontal line.

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